

REMARKS

In response to the Patent Office Action mailed March 29, 2006, wherein the Examiner has withdrawn the allowability of dependent claims 4, 5, 7 and 9 and rejected all of the claims as discussed below, independent claims 1 and 6 have been amended herein and claims 10 and 11 have been cancelled to reduce the number of issues for examination. Claim 7 has also been amended to be dependent upon claim 6, overcoming the Examiner's objection to the dependency of claim 7.

CLAIM REJECTIONS

First, the Applicant respectfully traverses the Examiner's withdrawal of the allowance of dependent claims 4, 5 and 7 to 9 based upon U.S. Patent No. 3,099,057 of *Cook*. The Applicant respectfully submits that the *Cook* patent *did not anticipate* any of the claims presented for examination and *it would not be obvious* to combine the teaching of either the *Ladouceur, et al.* patent (U.S. Patent No. 5,237,733) or the *Müller* patent (U.S. Patent No. 4,831,698) alone or in combination with the riveting fasteners disclosed in the *Cook* patent for the reasons set forth below.

As set forth in the specification of this application, a primary object of the female fastener element and method of installing a self-attaching female fastener element in a metal panel of this invention is to *eliminate the requirement for orientation of the female fastener element* during feeding of the fastener to an installation head. The *Ladouceur, et al.* and *Müller* patents, both assigned to the predecessor in interest of the assignee of this application, Multifastener Corporation, disclose female self-attaching fasteners having a body portion and a tubular barrel portion which is driven through an opening in the panel and riveted to the panel. The self-attaching fasteners are typically fed from a vibratory hopper to an installation head

typically attached to the upper die platen of a die press which “includes a reciprocating plunger which installs the self-attaching fastener in a panel with each stroke of the die press.” (See p. 2, [00005]).

As will be understood from the disclosures of the *Ladouceur, et al.* and *Müller* patents, the disclosed self-attaching female fasteners are *asymmetrical with respect to the longitudinal axis*. Thus, these fasteners must be first oriented, such that the tubular barrel portion faces the panel and the back face is aligned with the reciprocating plunger. The requirement for orientation of the fastener *slows down the installation process*.

As set forth in paragraph [00008], p. 4, of the specification:

The female fastener element of this invention may be fed to the installation head *in either orientation with respect to the longitudinal axis, significantly increasing the feed rate of the female fastener element from a hopper*, such as a conventional vibratory hopper, to the feed chute and *eliminating orientation of the female fastener element in the hopper* or prior to receipt of the female fastener element in a feed chute, such as a conventional flexible plastic tubular feed chute. (Emphasis added.)

The *Cook* patent discloses “self-retaining fasteners *comprising thermoplastic and similar materials*.” (col. 1, lines 9, 10). The preferred thermoplastic materials include nylon, polyethylene, polyvinylchloride, Teflon, polycarbonates, acetal resins, etc. (See col. 1, lines 25 to 28). While admittedly the Nylon grommet disclosed in Figure 6 includes a body portion 22 having a diameter greater than the tubular end portions and is symmetrical relative to a plane perpendicular to the longitudinal axis, the opening does not extend through the body portion 22

as required by claim 1 prior to this Amendment and *is not and cannot be internally threaded* because the rivet is formed of thermoplastic material and requires “a line of weakening extending around the tubular portion.”

Further, *none of the prior art references* cited by the Examiner *even addresses the problem of orientation of the female fastener in the hopper or prior to receipt in a feed chute*. There is *simply no teaching or motivation to combine the references except improper hindsight* based upon the disclosure of this application and the claims at issue. As stated by the Federal Circuit in *In Re Sang Su Lee*, 277 F.3d 1338 (Fed. Cir. 2002), the “factual inquiry whether to combine references *must be thorough and searching*... Our case law makes clear that the best defense against the subtle but powerful attraction of hindsight-based obviousness analysis is a rigorous application of the requirement for a showing of the teaching or motivation to combine prior references.” The “examiner can satisfy the burden of showing obviousness of the combination ‘only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.’” As set forth above, the self-piercing or self-clinching fasteners disclosed in the *Ladouceur, et al.* and *Müller* patents actually *illustrate the problem of orientation, not the solution*. That is, as set forth in the specification of this application cited above, the self-attaching fastener disclosed in the *Ladouceur, et al.* and *Müller* patents must be oriented “in the hopper or prior to receipt of the female fastener element in a feed chute.” There is certainly no disclosure or suggestion in either of these patents of a solution to this problem. But neither is there any suggestion to the solution of this problem in the *Cook* patent. Further, because of the *completely different application* of the self-retaining fasteners disclosed in the *Cook* patent, the Applicant respectfully submits that it would not be obvious to combine the

teaching of either of the *Ladouceur, et al.* or the *Müller* patents with the thermoplastic riveting elements disclosed in the *Cook* patent.

However, claims 1 and 6 are amended herein to further and more specifically patentably define over the prior art patents cited by the Examiner. Claims 1 and 11 are amended to specifically include forming the self-attaching female fastener element as a method step and both claims specifically recite that the bore *through* the body portion is “internally threaded.” It would be contrary to the teaching of the *Cook* patent to internally thread the tubular rivet. Further, both claims 1 and 6 now specifically recite that the first and second tubular barrel portions are “substantially identical,” having a “smooth substantially cylindrical inner surface,” contrary to the disclosure of the thermoplastic self-retaining fasteners disclosed in the *Cook* patent which *require* “a line of weakening extending peripherally around the tubular portion,” and the “interior of the bore at 5 is curved smoothly into this notch 4.” (col. 3, lines 25 to 30). This notch upon “completion of the clinching or heading operation takes place automatically by the self-impelling elastic action of the material causing the end 7 to flip over into the reversely folded condition as depicted in FIGURE 3.” (col. 3, lines 50 to 55). Thus, it would be *contrary to the teaching and function* of the self-retaining fasteners disclosed in the *Cook* patent to form the tubular barrel portion with “a smooth substantially cylindrical inner surface.”

Certainly, it would not be obvious from the teaching of either the *Ladouceur, et al.* or *Müller* patents to form a fastener of the type disclosed therein having “substantially identical” tubular barrel portions extending from opposed ends of the body portion. In fact, it would be contrary to the teaching of both of these references and *contrary to the teaching of the Cook patent* to modify the self-riveting fastener to include the features of either the *Ladouceur, et al.* or *Müller* patents. There is simply no “teaching or motivation” in any of the references to

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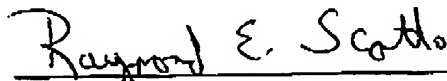
combine the references as proposed by the Examiner and the Examiner is relying solely upon hindsight for this combination. The fact that one of the disclosed embodiments of the thermoplastic riveting fasteners disclosed in the *Cook* patent is symmetrical with respect to a plane perpendicular to the longitudinal axis does not make it obvious to combine the references as proposed by the Examiner, the bore or opening in Figure 6 does not extend through the plastic fastener and certainly there would be no reason to thread the bore even if the fastener were not formed of a thermoplastic.

The Applicant therefore respectfully requests reconsideration of the rejection of the claims, particularly as amended, and allowance of this application.

Although it is believed that no fee is due for the filing of this Amendment, the Commissioner is authorized to charge our Deposit Account No. 08-2789 for any additional fees or credit the account for any overpayments regarding this Amendment. Further and favorable reconsideration of the outstanding Office Action is hereby requested.

Respectfully submitted,

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that the attached **Amendment** for Serial No. 10/691,847 is being facsimile transmitted to the Commissioner for Patents and Trademarks, Alexandria, Virginia, to the attention of **Examiner Douglas Mazzuca, Jr.** from **Group: 3726** to facsimile number **(571) 273-8300** on **June 21, 2006**.


Tracy L. Smith

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